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Fact Sheet for Congressional Requestors

November 1985

GREAT PLAINS

COMPLETED

Status of the Great Plains Coal Gasification Project

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

November 8, 1985

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

B-207876

The Honorable Philip R. Sharp
Chairman, Subcommittee on Fossil
and Synthetic Fuels
Committee on Energy and Commerce
House of Representatives

The Honorable Mark Andrews
United States Senate

As requested in your July 31 and August 5, 1985, letters and in subsequent meetings with your offices, we have obtained updated information on the Great Plains coal gasification project in North Dakota following the default of a $1.54 billion federal loan by the project sponsors. Your offices asked that we provide periodic briefing documents on the status of the project. Our first briefing paper was transmitted to your offices on September 18, 1985.

This fact sheet includes updated information obtained through October 31, 1985, on the loan default, Great Plains loan and gas pricing formula, legal matters and agreements, the Department of Energy's options and actions, Great Plains operations, and socioeconomic issues. The new information highlights changes in the gas pricing calculations; the Department's action to pay off the defaulted loan; legal action concerning gas purchase agreements; the project sponsors' proposed settlement; September revenue, expense, and production data; coal lease payments; capital improvement projects; plant by-products; and the final results of a North Dakota task force study of the potential socioeconomic impact if the plant closes.

We obtained the information from discussions with, and documents provided by, various federal, state, local, and industry officials involved with or affected by the Great Plains project. We also discussed a draft of this fact sheet with Department of Energy officials and their suggested clarifications have been incorporated where appropriate. Please call me on 275-8545 if you have any questions about the fact sheet.

James Duffus III
Associate Director

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Contents

APPENDIX		Page
I	GREAT PLAINS SPONSORS DEFAULTED ON FEDERAL GUARANTEED LOAN	3
II	GREAT PLAINS LOAN AND GAS PRICING FORMULA	5
III	DOE BORROWS FROM TREASURY AND PAYS OFF DEFAULTED LOAN	7
IV	LEGAL MATTERS, AUTHORITY, AND AGREEMENTS	8
V	DOE OPTIONS FOR GREAT PLAINS	12
VI	GREAT PLAINS OPERATIONS	14
VII	SOCIOECONOMIC IMPACT ISSUES	19

ABBREVIATIONS

ANG	ANG Coal Gasification Company
Btu	British thermal unit
DOE	Department of Energy
FFB	Federal Financing Bank
FHA	Federal Housing Administration
FmHA	Farmers Home Administration
GAO	General Accounting Office
GOCO	government-owned/contractor-operated
GPGA	Great Plains Gasification Associates
REA	Rural Electric Administration
SBA	Small Business Administration
VA	Veterans Administration

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GREAT PLAINS SPONSORS DEFAULTED ON FEDERAL GUARANTEED LOAN

On August 1, 1985, the partners of the Great Plains Gasification Associates (GPGA) terminated their participation in the Great Plains coal gasification project in North Dakota and the partnership defaulted on its $1.54 billion federal loan which was guaranteed by the Department of Energy (DOE). The GPGA partnership includes subsidiaries of American Natural Resources Company, Tenneco Inc., Transco Energy Company, MidCon Corp., and Pacific Lighting Corp. Their action followed a DOE July 30, 1985, decision that a proposed Synthetic Fuels Corporation's $720 million price support and debt-restructuring package for the Great Plains project would not support long-term operations at a reasonable cost to the taxpayer.

Once GPGA defaulted, in order to maintain continuity, DOE directed the plant operator, ANG Coal Gasification Company (ANG), to continue operations temporarily while DOE completed a transition plan. On August 15, 1985, the Secretary of Energy agreed to keep the Great Plains plant operating for several weeks while state officials discussed ways to meet certain DOE conditions for continued plant operation until the spring of 1986 in order to give DOE time to determine the future of the plant.

OBJECTIVES, SCOPE, AND METHODOLOGY

Senator Mark Andrews and Congressman Philip Sharp, Chairman of the Subcommittee on Fossil and Synthetic Fuels, House Committee on Energy and Commerce, asked GAO to review the government's options, responsibilities, and potential costs in deciding what to do with the project. Senator Andrews also asked GAO to address the socioeconomic impact issues. We prepared this fact sheet for discussion purposes in order to provide the requestors with information obtained as of October 31, 1985, on the various issues, legal matters, and problems the government is facing or will be faced with in deciding Great Plains' future.

The scope of our work included interviewing and obtaining pertinent documents and information from federal officials involved in or affected by the Great Plains project. We spoke with officials at DOE headquarters in Washington D.C., and its Chicago Operations Office; headquarters officials of the Synthetic Fuels Corporation and the Rural Electric Administration; and regional officials of the Small Business Administration, Federal Housing Administration, Farmers Home Administration, and Veterans Administration. We also spoke with officials at Great Plains, ANG, state of North Dakota, local governments, a local electric utility, and two local banks. DOE officials reviewed a draft of this fact sheet and their comments were incorporated where appropriate.

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Because of the short time frame involved in conducting our survey, we were unable to verify the information provided to us. In addition, we did not attempt to judge the reasonableness of the socioeconomic impact estimates provided to us by the task force of North Dakota state and local officials (see app. VII). Estimates of how closing the Great Plains plant might affect governments, corporations, and individuals depend upon many projections and assumptions that we did not evaluate. Thus, our reporting of these estimates should not be taken as an endorsement of them.

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APPENDIX II

GREAT PLAINS LOAN AND GAS PRICING FORMULA

The Federal Nonnuclear Energy Research and Development Act of 1974 (Public Law 93-577), as amended by the Department of Energy Act of 1978--Civilian Applications (Public Law 95-238), authorizes DOE to provide loan guarantees for alternative fuel demonstration projects. The Secretary of Energy awarded a loan guarantee to GPGA on January 29, 1982, for up to $2.02 billion of the estimated $2.76 billion cost to build and start up a plant producing synthetic natural gas from coal.

The federal government, through the Department of the Treasury's Federal Financing Bank (FFB), loaned GPGA part of the money for the project; GPGA financed the rest with its own equity. FFB loaned GPGA 75 percent of project construction and startup costs and DOE agreed to guarantee that amount up to $2.02 billion. The amount of borrowing and equity contributions depends on actual project costs. As of July 31, 1985, GPGA had borrowed about $1.54 billion from FFB and had contributed about $493 million in equity to the project.

Four pipeline companies, subsidiaries of four parent companies of the Great Plains partners, had agreed to purchase all the gas produced by the plant. The plant's production is the equivalent of about 1 percent of the pipeline companies' average annual gas requirements. The price of the gas was not fixed but would have been controlled by gas purchase contracts that contain a pricing formula. The pricing formula provided that the gas would be sold to the pipeline companies at a base price of $6.75 per million British thermal units (Btu's) in January 1, 1981, dollars. The price would vary quarterly based on changes in the Producers' Price Index and changes in the price of No. 2 fuel oil. The $6.75 price was comparable to the 1980 prices paid by interstate pipelines for unregulated natural gas.

However, the pricing formula set various "caps" on the prices. Specifically:

--For 5 years after the initial delivery of gas, the price could not exceed the price of unregulated No. 2 fuel oil.

--From the 6th through 10th year, the price would have been the greater of the average prices paid by the pipeline affiliates for the highest 10 percent of domestic natural gas or for Canadian and Mexican gas. In neither case would it be higher than the unregulated price of No. 2 fuel oil.

--After 10 years, the price would be based on the price of unregulated domestic natural gas. If gas prices were

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regulated at that time, then the price paid for Canadian and Mexican gas would have set the ceiling.

Great Plains began producing gas in July 1984. From July 28 through December 31, 1984, the formula price ($6.75 per million Btu's, adjusted) ranged from $6.98 to $7.28 per million Btu's. However, Great Plains' synthetic gas sales price ranged from $5.69 to $6.10 per million Btu's--the price of No. 2 fuel oil, which controls the sales price during the first 5 years of gas production. As of July 31, 1985, Great Plains had produced and sold about 28.3 billion cubic feet of gas, totaling about $153 million.

Actions not related to the Great Plains default have altered the gas pricing calculations. Effective July 1985, the Bureau of Labor Statistics ceased publishing the price of No. 2 fuel oil as a separate item. Because the pricing formula "cap" was based on that published price, it became necessary to devise an alternate approach. The published June price for No. 2 fuel oil was $5.3717. Under the new approach, the monthly product price index for No. 2 fuel oil was used to update the June price. With this method the July rate was calculated to be $5.0616 and the August price was calculated to be $5.0184. During August and September 1985, Great Plains produced and sold a total of about 7.2 billion cubic feet of gas, priced at about $36 million.

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APPENDIX III

DOE BORROWS FROM TREASURY AND PAYS OFF DEFAULTED LOAN

On August 6, 1985, DOE paid FFB the $401.6 million principal and interest payment that was due at the time GPGA defaulted on the $1.54 billion DOE-guaranteed loan. The funds for the payment were obtained from the project's appropriated loan guarantee default reserve fund, which totaled about $673 million at the time of default. The next scheduled payment of $633 million plus $31.9 million in interest was due on October 1, 1985, and the balance of $505 million was scheduled through the year 2002.

To protect the government's rights in foreclosure proceedings and to reduce the interest from the FFB rate of 11 percent to the Treasury rate of 8 percent, DOE exercised its authority to borrow from the Treasury under Section 19 of the Federal Nonnuclear Energy Research and Development Act of 1974, as amended. DOE then paid the principal balance of the FFB note of $1.138 billion plus accrued interest of $31.9 million on September 30, 1985.

According to a DOE Assistant Secretary, DOE intends to submit an FY 1986 Supplemental Request to the Congress to provide whatever additional appropriations may be needed to retire the Treasury loan. As of September 30, 1985, the loan guarantee default reserve contained $271.7 million. After expenses for the operation, maintenance, and preservation of the project assets in the interim, pending final disposition of the facility, the balance will be available to be applied against the Treasury note. The DOE Assistant Secretary also indicated that neither the action by the Department to borrow from the Treasury, nor the anticipated request to the Congress for supplemental appropriations to repay that borrowing, will have a net impact on the federal deficit, because both actions are intra-governmental transfers of funds.

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LEGAL MATTERS, AUTHORITY, AND AGREEMENTS

After GPGA defaulted on its loan, the Secretary of Energy directed his staff to review the status of Great Plains. Before DOE can make final decisions concerning its options, it must obtain title to the property. Other matters concern DOE's authority, foreclosure processes, ANG's operating agreement, coal and electric power supply contracts, gas purchase agreements, and the liability for expenses incurred during the June 24 to July 31, 1985, "standstill period" (see p. 10).

DOE has informed the Attorney General of the default and the need for his assistance to take action to protect the government's interest in the project and to recover the payments DOE has made to FFB on behalf of GPGA.

DOE AUTHORITY

- Under the loan guarantee agreement and the Nonnuclear Act, DOE believes it has broad authority to protect the government's interests in the event of a GPGA default.
- Generally, DOE is authorized "to complete, maintain, operate, or otherwise dispose of" the mortgaged property (42 U.S.C. §5919(g)(2); Loan Guarantee Agreement, §7.02(b)(iii)).
- DOE is of the opinion that, as a general matter, it needs no additional legislative authority to deal with GPGA's default.

FORECLOSURE

- Until DOE obtains title to the property, DOE believes its options are fairly limited; for example, without title to the property, DOE cannot sell the property.
- To obtain title and increase its options, DOE filed action to foreclose on the property on August 29, 1985, in the federal district court in North Dakota.
- DOE filed for summary judgment on October 16, 1985.
- Under North Dakota foreclosure law, GPGA would be able to redeem the property within 1 year of foreclosure; however, DOE's position is that North Dakota law does not apply on the grounds of sovereign immunity.

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- If DOE obtains title upon foreclosure, DOE would have available a wide range of options--operate, lease, sell, mothball, or scrap the project--and would be in a position to exercise the option it considers to be in the best interest of the government.

PROPOSED ANG AGREEMENT

- DOE is negotiating an interim agreement with ANG under which ANG will operate the project until DOE decides on its future.

- According to DOE, under the proposed interim agreement

  --ANG would not be an agent of DOE; ANG would be responsible for operating the plant, assuring supplies, and distributing and selling the products produced.

  --ANG would operate the plant on a no-profit or no-loss basis to ANG.

  --DOE could terminate the agreement at will.

SUPPLY CONTRACTS

- The contract for supplying electric power to the plant is a 10-year contract (which requires payment even if electricity is not needed) between Basin Electric Power Cooperative and Great Plains with an estimated total cost of $220 million to $300 million.

- The contract for supplying coal to the project and Basin Electric's power plant is a 25- to 35-year cost plus contract between Coteau Mining Company, Basin Electric, and Great Plains.

- According to DOE officials, DOE has no liability under current supply contracts (e.g., coal purchase agreements, Basin Electric agreement) because it is not a party to any of those contracts.

GAS PURCHASE AGREEMENTS

- DOE stated that under separate pipeline affiliate agreements with gas purchasers, the purchasers are obligated to purchase gas from the project.

- Whether the gas purchase agreements remain valid is an issue before federal district courts.

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--On August 19, 1985, Natural Gas Pipeline Company, a unit of MidCon Corporation, filed action in Washington, D.C., and Illinois asking the federal district court for the District of Columbia and the circuit court of Cook County, Illinois, to declare its gas purchase agreement void. The Illinois action has been dismissed.

--As part of the foreclosure action, DOE filed suit in the federal district court in North Dakota to enforce the gas purchase agreements; the state of North Dakota has filed to intervene in the case on the side of DOE.

--On October 25, 1985, Tennessee Gas Pipeline Company, an affiliate of Tenneco, Inc., filed action in North Dakota asking the federal district court to either terminate its gas purchase agreement or approve its payment for Great Plains gas at the lower market value of other gas on its system.

STANDSTILL PERIOD EXPENSES

- Faced with the uncertainty of federal price supports and the financial impact of continuing operations, a standstill agreement was effected between DOE and GPGA for the period from June 24 to July 31, 1985.

  --The agreement was aimed at keeping the plant in operation through July 1985 while negotiations for federal price support were expected to be settled.

  --The agreement enabled the Great Plains partnership to delay interest and guarantee fee payments and additional equity contributions until August 1, 1985.

- DOE officials told us that the Great Plains partners are liable for all expenses incurred during the standstill period (including operational costs, capital improvements, inventory expenses, etc.).

- According to DOE, the partners contend that they are only responsible for costs incurred to keep the plant in operation during this period.

- On September 23, 1985, the Great Plains Gasification Associates made a cash contribution of $441,000 as the Associates' final payment of costs under the standstill agreement with DOE. This was in addition to $13 million the partners contributed in August 1985 as equity funding to Great Plains.

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- DOE sent an October 2, 1985, letter to ANG stating that DOE does not consider the Associates' contributions the final payment due.
- According to DOE, pending the outcome of the final decision on standstill period liabilities (an audit of partnership records is under consideration by DOE's Inspector General), additional equity contributions may be required from the partners.
- The partners' auditors (Arthur Anderson & Co.) stated in a September 10, 1985, report that the accounts payable and accrued liabilities of Great Plains Gasification Associates, as of July 31, 1985, were presented fairly and that they found no unrecorded liabilities.

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DOE OPTIONS FOR GREAT PLAINS

DOE is studying its options on the future of the Great Plains coal gasification project. The study is to identify and consider the pros and cons of each option in terms of the potential federal costs and socioeconomic impact on the state of North Dakota. DOE plans to use various assumptions to evaluate each option and will disclose the results of its study after the Secretary of Energy has reviewed the assumptions and options. DOE said that the options are to continue to operate the plant, sell it or lease it to a corporation, shut down the plant until a buyer or lessor is found, mothball it, or scrap the plant.

OPERATE

- DOE could operate the project as a government-owned/ contractor-operated plant (GOCO) by competitively procuring the services of an operating contractor.

  --DOE stated that it does not have funds to operate the plant as a GOCO.

SELL

- DOE could try to sell the plant on the open market and try to recover some of the $1.54 billion it has invested.

- According to DOE, the plant could probably not be sold in less than 1 year.

LEASE

- DOE could lease the plant to an entity on the basis of DOE's estimated monthly revenues of $20 million and expenses of $16 million.

SHUT DOWN

- If the plant is shut down, DOE believes that:

  --The plant could be maintained up to 3 months in a nonoperating mode without serious deterioration of equipment.

  --The estimated cost for routine security and maintenance would be about $1.5 million a month.

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MOTHBALL

- DOE could shut the plant down and mothball the equipment, piping systems, control systems, buildings, and other facilities and maintain the plant in a mothballed condition.

- DOE testified in May 1985 that it would cost an estimated $100 million to mothball the plant, about $6 million annually to maintain it, and an estimated $100 million to restart the plant.

- A DOE contractor reviewing mothballing alternatives estimated in August 1985 that it would:

  --Cost $12.4 million to mothball the plant for up to 6 months and $4.6 million to maintain it for the 6 months in a condition so that it could be restarted in a short time frame or mothballed for a long term.

  --Cost $19.4 million to mothball the plant for 6 months to a year and $11.7 million annually to maintain it in a condition so that it could become fully operational within 2 or 3 months after it is restarted.

  --Cost $20 million to mothball the plant for 1 or more years and $6.5 million annually to maintain it in a condition so that it could become fully operational in 6 months.

- The contractor's estimates excluded costs for insurance, taxes, consultants, contract severance, restarting the plant, and DOE expenses.

- According to DOE, the more recent estimates are more realistic and in line with normal decommission and mothballing experiences.

SCRAP

- DOE could dismantle and salvage plant equipment and facilities.

- According to DOE, the project would be scrapped as a last resort.

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GREAT PLAINS OPERATIONS

The Great Plains plant is the nation's first commercial-scale facility producing synthetic natural gas from coal. Project construction began in August 1981 and was completed in December 1984, as scheduled. The plant has been producing and selling synthetic gas since July 1984 as part of the operational startup and testing process. During 1985, the plant met production performance standards for commercial operations. Some technical problems remain and modifications are needed to meet design specifications and environmental control agreements. Great Plains was scheduled to complete required air quality control testing by September 1985, but the date has been extended to September 1986.

GPGA appointed ANG as project administrator responsible for the construction, startup, and operation of the gasification plant. A management committee composed of representatives from each of the sponsoring partners provided overall direction to ANG. DOE's Office of Assistant Secretary for Fossil Energy was responsible for monitoring project construction and operations. The day-to-day monitoring of the project was delegated to DOE's Chicago Operations Office. When GPGA defaulted on its federally guaranteed loan on August 1, 1985, DOE directed ANG to continue plant operations until further notice.

According to DOE, any decision on plant operations will be made independent of the decision on the ultimate future of the project. Further, DOE does not believe that operating the project during the transition period would result in further costs or economic risk to the U.S. taxpayer.

PROJECT MANAGEMENT

- Following notice of default, DOE's Assistant Secretary for Fossil Energy provides direction to ANG through DOE's Chicago Operations Office.
- DOE plans to work closely with ANG to cut costs and increase operating efficiencies.
- DOE and ANG have agreed to a new financial operations reporting system that includes:
  - --A weekly cash flow report detailing actual and projected receipts and disbursements.
  - --A monthly project cost statement that reports end-of-month revenues, operating costs, and other costs on an accrual accounting basis.

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PLANT PRODUCTION

- During 1985, Great Plains gas production averaged about 76 percent of design capacity of 137.5 million cubic feet per day.
- During the last several months, gas flow to the pipeline exceeded this average. June production averaged 88 percent; July, 91 percent; August, 86 percent; and September, 89 percent.
- Production levels dropped during periods when half the gasifiers were shut down for scheduled plant maintenance.

REVENUES

- Monthly revenues earned from the sale of gas and by-products (ammonia, tar oil, and sulfur) are about $20 million.
- Maintaining this level of income depends on whether the four pipeline companies continue to purchase gas at the prices specified in their gas purchase agreements.

--Three of the four pipeline companies have paid for their gas purchases through September 1985. Their payments totaled $14.5 million for August purchases and $15.4 million for September purchases.

--Natural Gas Pipeline Co., which filed action to void its gas purchase agreement, has not paid for any gas purchased since June 1985. Invoiced gas sales to the company totaled about $11.5 million for July, August, and September 1985.

- Since the default, revenues have been placed in a special depository account and are being used to pay operating expenses.

OPERATIONAL EXPENSES

- Monthly operating expenses total about $16 million.

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- August and September 1985 expenses consisted of:

	August	September
	------(millions)------	
Coal	$ 3.7	$ 3.8
Electricity	2.5	2.2
Other utilities	1.4	1.4
Personnel	4.0	4.0
Maintenance materials	1.3	1.3
Materials, supplies, etc.	.7	.7
Chemicals and catalysts	.9	.9
Contract labor and consultants	1.7	1.7
Other operating costs	.3	.3
Total	$16.5	$16.3

- Projected expenses through December 1985 do not indicate any significant changes from the August and September expenses.

- An August payroll of about $1.5 million was paid from funds that had been transferred from the project's appropriated loan guarantee default reserve fund. All other operating expenses since August 1, 1985, have been paid from project revenues.

- Meridian Land and Mineral Co. owns two coal lease tracts containing about 35 million tons of coal within and around the Freedom Mine that supplies Great Plains. On November 8, 1984, ANG approved an agreement whereby Meridian would sell all remaining unmined coal for $15 million. Under the agreement, ANG and Basin Electric were to share in the cost on roughly a 50/50 basis by making periodic payments through March 1989. Scheduled payments were required under the "take or pay" terms of the agreement regardless of whether ANG and Basin Electric took delivery of the coal. According to ANG officials:

  --ANG paid the scheduled March 1985 coal lease payment of $95,119.

  --ANG was unable to pay the $2,278,000 that was due on October 1, 1985, because of cash flow problems. DOE is considering alternatives to resolve this matter.

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CAPITAL IMPROVEMENTS

- The Great Plains budgets for 1985 and 1986 provided $81 million for 150 plant modification projects, including modifications to meet odor, air, and water quality standards.

- DOE has instructed ANG not to make any capital improvements without its approval.

- In August 1985 ANG identified 50 capital improvement projects for further consideration. About $10 million had already been spent or committed for many of these projects. ANG estimated that an additional $15 million would be needed to complete all 50 projects.

- In September ANG reviewed capital improvement projects to identify those that are essential for plant operations and to assure workers' health and safety, or those that would increase operating efficiencies.

- ANG requested approval of three "urgently needed" capital improvement projects estimated to cost an additional $571,600.

  --DOE approved two of these projects with combined estimated costs of $71,600. The projects are to provide cost-effective solutions to address environmental situations requiring immediate attention.

  --DOE rejected ANG's request for a cooling tower windwall project estimated to cost $500,000. This project provided for the erection of steel structures to prevent the wind from causing water losses and ice buildup in the plant's cooling tower.

- DOE, in conjunction with ANG and the North Dakota State Department of Health, is continuing to review projects aimed at reducing odor problems.

- The plant's sulfur recovery process has not met the design specifications for sulfur dioxide emissions and is one of the most serious operational problems needing modification. DOE has authorized continuation of the "caustic wash" test program to help resolve this problem.

PLANT MAINTENANCE

- DOE has instructed ANG to continue maintaining plant equipment and facilities to assure efficient plant operations.

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- DOE authorized ANG to proceed with winterization of the plant facilities.

- Seven gasifiers (train B) were shut down in May 1985 for 2 weeks for scheduled maintenance.

- The other seven gasifiers (train A) were shut down in August for scheduled maintenance that cost $347,000 and critical capital improvements that cost $415,000.

- The next anticipated shutdown of a gasifier train is in February 1986.

OPERATIONAL ALTERNATIVES UNDER STUDY

- On the average, over 95 percent of Great Plains earned revenues are from the production and sale of synthetic natural gas. In August 1985 the three by-products now being marketed (sulfur, ammonia, and coal tars) represented just 1.6 percent of revenues recorded. ANG is studying the potential for increasing revenues by (1) developing and marketing additional by-products and/or (2) reconfiguring the plant to produce other liquid products from the gas which have a higher market value.

- For example, according to an ANG official, carbon dioxide is a major by-product not now marketed that potentially could yield $17 million or more annually in additional revenues if an adequate supply could be guaranteed for a long period. We were also told that the tar oil by-product could ultimately earn from $10 to $15 million annually with some additional capital investment and the development of new customer markets. Also, under preliminary study is a range of cresols/cresylic acids and organic chemicals that may ultimately prove profitable.

- Preliminary studies by ANG indicated that it may be feasible to reconfigure a portion of the plant's capacity to produce other principal products. In a September 3, 1985, letter to DOE, ANG recommended further investigation of seven such other products, with jet fuel in the first order of preference followed by a combination of jet fuel and gasoline. Ammonia and methanol were included among the other products recommended for study. DOE has authorized an in-house effort by ANG to further evaluate the potential of those products.

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SOCIOECONOMIC IMPACT ISSUES

North Dakota state and local officials believe that closing the Great Plains coal gasification project could have significant socioeconomic impacts on North Dakota and local communities. Direct and contract employment at the plant and mine totals about 1,523. The state task force estimated that about 3,800 jobs are generated for the state by this project and support services.

The populations of both Mercer County in which the plant is located and adjacent Oliver County have increased significantly during the past 10 years as a result of increased energy development. According to city planners and local school district officials, the local communities (particularly Beulah and Hazen) responded to the growth by building additional and/or better homes, schools, and businesses and improving public and social services (water, sewer, fire, streets, health, etc.). These officials also stated that, as a result, these communities substantially increased their long-term indebtedness and rely on various types of energy and other taxes to help provide needed revenues.

In early August 1985, North Dakota organized a task force of state and local officials to develop estimates of federal, state, and local costs that would result over a 7-year period if the Great Plains plant were closed on October 1, 1985. The study was completed in October 1985 and the final results were provided to DOE. The cost estimates were based on the state's fiscal year which runs from July 1 to June 30. We cannot say whether these estimates are reasonable because we have not evaluated either the assumptions or the estimating procedures used to generate them.

We obtained information on possible additional impacts through discussions with officials of the Federal Housing Administration (FHA), Farmers Home Administration (FmHA), Veterans Administration (VA), Small Business Administration (SBA), and city planning offices, schools, and commercial banks in Beulah and Hazen.

FEDERAL

- The state task force's study estimated that, if the plant were shut down in October 1985, the federal government would lose income tax revenues and federal coal royalty payments as follows:

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Federal revenues lost	FY 86	FY 86 thru FY 92
Individual income taxes	$3,810,000	$72,280,000
Corporate income taxes	50,000	15,150,000
Coal royalty payments	450,000	4,050,000
Total	$4,310,000	$91,480,000

- In addition, the study estimated that the federal government would incur increased expenditures for social services as follows:

Federal expenses increased	FY 86	FY 86 thru FY 92
Aid to families with dependent children	$115,000	$ 1,524,000
Medical assistance	167,000	2,340,000
Food stamps	482,000	6,877,000
Total	$764,000	$10,741,000

- The task force did not estimate the potential plant shutdown costs that would be incurred by the federal government.

Housing

- FHA, VA, and FmHA regional officials indicated that increased populations in Mercer and Oliver counties resulted in construction of many houses with federal and federally insured loans.

- According to FHA and VA regional officials, FHA has insured about 384 housing loans (totaling about $19.8 million) and VA has insured about 27 housing loans (totaling about $1.7 million) since January 1981 in the two counties.

- FmHA regional officials indicated that FmHA has made or insured about 210 housing loans (totaling about $8.5 million) in the two counties but did not specify the dates of the loans.

- The Director of the FHA office in Fargo, North Dakota, estimated that 75 percent of the FHA-insured homes might revert to the agency if the Great Plains plant were closed.

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- The Chief of Rural Housing at FmHA's Bismarck office estimated that about 33 percent of the FmHA-insured homes might revert to the agency if the plant were closed.

- The FmHA Chief also pointed out that:

  --The cost of maintaining this inventory of homes could be significant if the homes remain unsold for some time.

  --The FmHA national average for maintenance of such homes is $400 monthly (caretaking, taxes, and lost interest).

  --FmHA has an inventory of 100 homes in the Dickinson and Williston areas of North Dakota that reverted to the agency following the decline in employment in the oil industry.

STATE

- The state task force's study estimated that the state of North Dakota would lose tax revenues and coal royalty payments as follows:

State revenues lost	FY 86	FY 86 thru FY 92
Coal conversion taxes	$2,607,000	$ 30,268,000
Coal severance taxes	2,937,000	31,638,000
Individual income taxes	400,000	7,590,000
Sales and use taxes	2,140,000	20,770,000
Corporate income taxes	10,000	3,030,000
Coal royalty payments	312,000	2,814,000
Motor vehicle taxes	238,000	2,829,000
Motor fuels taxes	1,070,000	9,530,000
Total	$9,714,000	$108,469,000

- In addition, the study estimated that the state would incur increased expenses for unemployment payments and social services as follows:

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APPENDIX VII

State expenses increased	FY 86	FY 86 thru FY 92
Unemployment compensation	$9,100,000	$ 9,100,000
Aid to families with dependent children	77,000	1,013,000
Medical assistance	118,000	1,651,000
General assistance	33,000	80,000
Social services	0	665,000
Low-income home energy assistance program	538,000	2,938,000
Total	$9,866,000	$15,447,000

LOCAL

- The state task force's study estimated that the local governments (Mercer County and the communities and school districts in the county) would lose tax revenues as follows:

Local revenues lost	FY 86	FY 86 thru FY 92
Coal conversion taxes	$1,353,000	$15,788,000
Coal severance taxes	734,000	7,907,000
Property taxes and special assessments	134,000	6,035,000
Total	$2,221,000	$29,730,000

- In addition, the study estimated that Mercer County would incur increased expenses for social services as follows:

County expenses increased	FY 86	FY 86 thru FY 92
Aid to families with dependent children	$ 16,000	$ 228,000
Medical assistance	18,000	254,000
Food stamps	6,000	26,000
General assistance	33,000	80,000
Social services	57,000	718,000
Total	$130,000	$1,306,000

- The study also pointed out that the local county and city governments had incurred costs for additional infrastructure investments (for street and sewer improvements, new buildings, etc.) to accommodate the

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growth stemming from the Great Plains project. According to the study, the following local infrastructure costs would not have been incurred if the project had not been constructed.

County government costs	$18,174,000
City government and school districts' costs	32,634,000
Total	$50,808,000

- City planners in Beulah and Hazen (the two most impacted cities) said that the reduced level of revenues from the loss of coal conversion, coal severance, and property taxes would limit their ability to pay the debts incurred in connection with the Great Plains project.
- According to the city planners, special assessment bonds (totaling $4.4 million in Beulah and $1.6 million in Hazen) were issued to provide additions to water, sewer, and street systems.
- North Dakota state law requires cities to assign tax shortfalls on such special assessments to the remaining local residents.
- The city planners said that the current mill ($.001) levy of 4 mills in Beulah and 7 mills in Hazen would require increases to 210 mills and 194 mills for the respective towns if the plant were closed.
- They pointed out that such mill levy increases are unrealistic because it would be unreasonable to expect the remaining taxpayers to assume the tax increases and could only lead to additional tax defaults.

Schools

- Beulah and Hazen school districts doubled their enrollments from about 500 students each in 1975-76 to about 1,000 each in 1984-85.
- The schools' superintendents estimated that Beulah would lose about 500 students and Hazen about 400 students over a 4-year period if the Great Plains project were closed.

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- Each of the two school districts has outstanding debts of about $2 million which were incurred from expanding facilities as a result of the project.

- The two schools' superintendents said that more than 90 percent of the districts' budgets are fixed costs and that, even though enrollment reductions would reduce teacher requirements, teacher contracts would have to be honored.

Business

- The state task force's study estimated that private individuals and companies would lose coal royalty payments in the following amounts if the Great Plains project were closed.

Private coal royalty payments lost

FY 86	$1,071,000
FY 86 thru FY 92	$9,648,600

- According to federal, city, and banking officials, the increase in population in Mercer and Oliver counties created many business opportunities, some of which were partly financed by SBA and FmHA.

- The Beulah City Planner said that about 60 to 70 of the 110 existing businesses were new businesses largely attributable to Great Plains.

- Information provided by the SBA Director in Fargo, North Dakota, showed that, as of August 1985, SBA had provided loan guarantees totaling about $1.7 million to businesses in the communities near the plant.

- An additional SBA loan of $147,000 had been committed but not disbursed.

- An FmHA official in Bismarck, North Dakota, provided information showing that FmHA loans and loan guarantees totaling about $2.9 million have been made to businesses near the plant--she also indicated that the possibility of default for these loans would be high if the plant closes.

- Officials of two commercial banks in Beulah and Hazen said that the banks have made about $7.6 million in business loans to meet increased demands resulting from the Great Plains plant.

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- One of the banks also made about $1.2 million in consumer loans to employees of the Great Plains project, Coteau Coal Company, and Basin Electric Power plant.

ELECTRIC POWER AND MINING

Basin Electric

Basin Electric has entered into a 10-year contract to supply between 70 and 90 megawatts of electric power to operate the Great Plains gasification plant. This contract is expected to provide annual revenues to Basin Electric of approximately $22 million, at a minimum, and up to about $30 million. Basin Electric has publicly stated that it expects the terms of this contract to be adhered to.

Great Plains was to reimburse Basin Electric for the cost of certain plant-site facilities shared by and benefiting both Basin Electric's Antelope Valley Station generating plant and the Great Plains gasification plant. The total reimbursement cost of these facilities is about $117.3 million. According to Basin Electric, should operation of the gasification plant cease, the annual payments of the shared costs could no longer be made and would be subject to inclusion in Basin Electric's revenue requirements from its member systems.

- The Rural Electric Administration (REA) has rate jurisdiction over Basin Electric and is reviewing Basin's 1986 request to raise wholesale power rates by either 15 percent, if the Great Plains gasification plant continues to operate, or about 28 percent, if the plant closes.

- REA anticipates no financial loss on its approximately $2.3 billion in loan guarantees and financing assistance to Basin--of which about $1.3 billion is for the Antelope Valley Station.

Electric Cooperative

The Oliver-Mercer (counties) Electric Cooperative, Inc., which buys its power from Basin, provides residential and small commercial customers with power in the Great Plains gasification plant rural area.

- Co-op officials estimate a 12.9 percent rate hike if the plant closes, in addition to any costs passed through by Basin Electric.

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Utility

Montana Dakota Utilities provides residential and commercial customers with power in the incorporated areas of Beulah, Hazen, and Zap.

- An official stated that a Great Plains gasification plant closure would have little or no financial impact on the utilities' rate base.

Freedom Mine

Another related impact from a potential Great Plains gasification plant shutdown would be reduced production at the Freedom Mine.

- Basin Electric estimates that the increased costs per ton to mine lignite (coal) would result in increased fuel costs for the Antelope Valley Station; this would amount to about $12 million in 1987.

OTHER

- The state of North Dakota sold revenue bonds to private investors and the proceeds were used to provide mortgage assistance to first-time home buyers.

  --The Director of the North Dakota Financing Agency said that there is about $8.6 million in loans outstanding in four energy-impacted counties, 69 percent of which is held by private investors.

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